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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,599	12/22/2004	Jeong-Hwan Lee	AB-1400 US	2625
32605 7590 03/09/2007 MACPHERSON KWOK CHEN & HEID LLP 2033 GATEWAY PLACE SUITE 400 SAN JOSE, CA 95110			EXAMINER CHUNG, DAVID Y	
			ART UNIT	PAPER NUMBER
			2871	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/519,599

Applicant(s)

LEE ET AL.

Examiner

David Y. Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 11 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 9, 12 and 16-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 2, and 4 rejected under 35 U.S.C. 102(e) as being anticipated by Ueda et al. (U.S. 7,178,963).

As to claim 1, Ueda discloses a backlighting system and a display panel shown in figure 3. Note the lamp house 3 (receiving container) containing peripheral portion 3b, a light source 4 (lamp), a moisture-proof sheet 7 (glass substrate) between the light source and the display panel 6, and a diffusion plate 2 for diffusing light generated by the lamp. See column 5, lines 44-58. Ueda teaches that the moisture-proof sheet 7 is formed of material with a large transmittance such as polycarbonate, PET, or glass. See column 6, lines 13-19.

As to claims 2, the diffusion plate 2 is a first diffusion sheet disposed on a face of the moisture-proof sheet 7 that is facing the liquid crystal panel 6.

As to claim 4, the bottom face 3a of the lamp house 3 contains sidewall portions 3c for supporting the moisture-proof sheet 7.

2. Claim 14 rejected under 35 U.S.C. 102(e) as being anticipated by Ogawa et al. (U.S. 6,636,282).

Ogawa discloses the liquid crystal display shown in figure 16. Note the molded case MCA (receiving container) having a bottom face, sidewall, and plate defining a ledge extending partially about an upper periphery. Note also the lamps CFL disposed on the bottom face, the glass substrate SUB1 disposed in the receiving space and having an outer periphery supported on the ledge of molded case, and the diffusing plate SCT. A liquid crystal display panel PNL produces the display image.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 7 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 7,178,963) in view of Iwata et al. (U.S. 6,111,699).

Ueda does not disclose diffusion beads disposed on the upper and lower faces of the diffusion sheet. Iwata discloses a light diffusing film having light diffusing beads dispersed in a transparent resin. Note in figures 1-4, the light diffusing film 18 comprising transparent resin 16 and diffusing beads 14. See column 5, line 50 –column 8, line 67; column 9, line 18 – column 10, line 40; column 13, lines 3-34. Iwata teaches that this type of film reduces the variation of haze values, and thus improves display quality. See abstract. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide diffusing beads in order to improve display quality.

4. Claims 5 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 7,178,963) in view of Honda et al. (U.S. 2002/0012085).

Ueda does not disclose a glass substrate comprising a first glass plate, a second glass plate, and a second diffusion sheet. Honda teaches this type of structure as shown in figure 1 because of easiness of handling. Note the resin sheets 24 and the scattering sheet 11. It would have been obvious to one of ordinary skill in the art at the time of invention to provide the structure disclosed by Honda because of the easiness of handling. Comparative example 1 shown in table 1 has a haze value of 91.3%.

5. Claims 6 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 7,178,963) in view of Honda et al. (U.S. 2002/0012085) in further view of Iwata et al. (U.S. 6,111,699).

As to claim 6, Ueda does not disclose diffusion beads disposed on the upper and lower faces of the diffusion sheet. Iwata discloses a light diffusing film having light diffusing beads dispersed in a transparent resin. Note in figures 1-4, the light diffusing film 18 comprising transparent resin 16 and diffusing beads 14. See column 5, line 50 – column 8, line 67; column 9, line 18 – column 10, line 40; column 13, lines 3-34. Iwata teaches that this type of film reduces the variation of haze values, and thus improves display quality. See abstract. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide diffusing beads in order to improve display quality.

As to claim 13, Ueda does not disclose a glass substrate comprising a first glass plate, a second glass plate, and a second diffusion sheet. Honda teaches this type of structure as shown in figure 1 because of easiness of handling. Note the resin sheets 24 and the scattering sheet 11. It would have been obvious to one of ordinary skill in the art at the time of invention to provide the structure disclosed by Honda because of the easiness of handling.

Art Unit: 2871

6. Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 7,178,963) in view of Iwamoto et al. (U.S. 5,046,826).

Ueda discloses a diffuser formed on the face of the moisture-proof sheet 7 facing the liquid crystal panel but does not disclose that the diffuser is an embossing pattern. However, this was common and conventional as evidenced by the disclosure of Iwamoto. Iwamoto discloses a diffusion sheet 104-1 that can be a surface roughened PMMA for example. See column 5, lines 25-32. It would have been obvious to one of ordinary skill in the art at the time of invention to make the diffuser an embossing pattern in order achieve good light scattering.

7. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al. (U.S. 6,636,282) in view of Iwamoto et al. (U.S. 5,046,826).

Ogawa discloses a diffuser SCT formed on the face of the glass substrate SUB1 facing the lamp CFL but does not disclose that the diffuser is an embossing pattern. However, this was common and conventional as evidenced by the disclosure of Iwamoto. Iwamoto discloses a diffusion sheet 104-1 that can be a surface roughened PMMA for example. See column 5, lines 25-32. It would have been obvious to one of ordinary skill in the art at the time of invention to make the diffuser an embossing pattern in order achieve good light scattering.

Allowable Subject Matter

Claims 9, 12 and 16-20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 9, Ueda discloses the diffuser on the opposite face of the glass substrate than what is claimed and there does not seem to be any motivation to switch this.

As to claim 12, given that Ueda discloses the moisture-proof sheet to be only 0.18 mm thick, it does not seem obvious to have this sheet comprise two glass plates.

As to claims 16-18, Ogawa does not disclose a glass substrate that is distinct from those comprising the liquid crystal panel.

As to claims 19 and 20, Ogawa does not disclose a glass substrate having a first and second glass plates, and there does not seem to have been any motivation to form glass substrates having this structure.

Response to Arguments


Applicant's arguments with respect to claims 1-8, 10, 11 and 13-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (571) 272-2288. The examiner can normally be reached Monday-Friday 9:30 am to 6:00 pm.


David Nelms
Supervisory Patent Examiner
Technology Center 2800

David Chung
GAU 2871
03/03/07